United States
Department of
Agriculture

Economic
Research
Service

RS-38

September 1981

Rice

OUTLOOK & SITUATION

Table 1--Rice, (rough equivalent): Supply, disappearance, area, and price 1/

Item	1978/79	1979/80	1980/81 (prel.)	1981/82 (Proj.)
		Million cwt.		
Supply				
Beginning stocks, August 1	27.4	31.6	25.7	16.5
Production	133.2	131.9	145.1	178.6 ± 6
Total 2/	160.7	163.6	171.0	195.2 ± 6
Domestic disappearance				
Food 3/	33.7	33.2	38.3	39.5
Seed	4.3	4.8	5.1	5.2
Brewers use	11.2	11.2	11.1	11.8
Total	49.2	49.2	54.5	56.5 ± 2
Exports	75.7	82.6	91.4	83.5 ± 7
Total disappearance	124.9	131.8	145.9	140.0 ± 8
Unaccounted for 4/	+4.2	+6.1	+8.6	+3.5
Ending stocks, July 31	31.6	25.7	16.5	51.7 ± 8
		Million acres		
Area				
Planted	2.99	2.89	3.36	3.86
Harvested	2.97	2.87	3.30	3.82
Allotment	1.80	1.80	1.80	1.80
		Pounds per acre		
Yield per harvested acre	4,584	4,599	4,403	4,677
		Dollars per cwt.		
Prices				
Received by farmers	8.16	10.50	12.00	9.00-11.00
Loan rate	6.40	6.79	7.12	8.01
Target rate	8.53	9.05	9.49	10.68
Parity price	15.40	17.10	19.00	20.80

1/ Consolidated supply and disappearance of rough and milled rice. Milled rice data converted to a rough basis using annually derived milling yields as factors. 2/ Includes imports. 3/ Includes military and shipments to teritories. 4/ Results from drying, storage, handling, milling losses, and from statistical error.

In This Issue

Principal Contributors:
Domestic
Shelby H. Holder Jr. (501) 442-7120
Janet Livezey (202) 447-8444
R. Samuel Evans (202) 447-8776
Alberta Smith-Statistics " " "
World
Eileen Manfredi (202) 447-7643

Approved by
The World Agricultural
Outlook Board
and Summary released
September 22, 1981

National Economics Division
Economic Research Service
U.S. Department of Agriculture
Washington, D.C. 20250

Situation Coordinator:
Shelby H. Holder, Jr.

The next *Rice Situation* will be published in early 1982.

Summary

Record Supplies and Weaker Export Demand Highlight the U.S. Rice Outlook

Prospects for record supplies, weaker export demand, and sharply lower prices dominate the U.S. rice outlook for 1981/82. Based on conditions as of September 1, production is forecast at 179 million cwt, more than a fifth above 1980. Even with low carryin the projected supply of 195 million cwt would be the largest ever for the United States. This year's crop is being harvested from a record 3.8 million acres, an increase of over 500,000 from a year ago. The sharp rise is largely a result of high rough-rice prices and falling soybean and cotton prices last spring.

Increased production in major rice-importing countries could cause U.S. exports to decline this season. In particular, output in South Korea—our leading customer last season—is expected to rebound sharply. These factors, along with the strong dollar and high interest rates, are likely to cause demand for U.S. exports to weaken considerably. For the year, U.S. rice exports are forecast at 84 million cwt, nearly a tenth below last year's record.

Despite an expected 4-percent increase in domestic disappearance, total disappearance is projected at 140 million cwt, 6 million below a year earlier. As a result, stocks on August 1, 1982, are projected to reach 52 million cwt, more than triple the season's beginning level. The stocks-to-use ratio would be 37 percent, up sharply from the average of 19 percent for the previous three seasons. This increase indicates considerable downward pressure on rice prices.

U.S. average prices of rough rice have been declining since last April, when they reached a seasonal peak of $13.80 per cwt. As the record acreage and production became more certain and demand prospects weakened, prices began to drop, falling to $12.80 by July . The U.S. average price of rough rice during August-December will likely fall below the target price of $10.68, making allotment holders eligible for deficiency payments. Allotment acreage of 1.8 million account for about 47 percent of the total area. The season-average price for 1981/82 is expected to fall between $9.00 and $11.00 per cwt, with the most likely price near the mid-point of the range.

World rice production in 1981/82 is forecast at a record 409 million metric tons (rough basis), a 3-percent increase from the preceding crop. Normal monsoons in Asia and timely rainfall in South Korea are largely responsible. A major increase is expected in South Korea, where production is forecast at 7.4 million tons, up 1.9 million from last year's disasterously low level. China, India, Indonesia, Japan, and Brazil also anticipate significant expansion in output. The record world crop and South Korea's lower imports will likely keep 1982 world rice trade around 12.7 million tons, down from the 1981 record of 13.2 million.

DOMESTIC SITUATION

Rice Acreage Soars to New High; Prices And Weather Major Causes

U.S. harvested rice acreage soared to 3.8 million in 1981, up 524,000 from a year ago. Reasons for the sharp increase vary with individual producers, but major factors include near-record prices of rough rice in 1980/81, the weather, and the prices of alternative crops. U.S. average prices for rough rice during January-May 1981 ranged from $13.00 per cwt in February to a seasonal high of $13.80 in April. Producers apparently found these prices favorable when they made their planting decisions.

The price of soybeans, an important alternative crop (particularly for the southern region), was declining at rice-planting time. In response to weakening demand, soybean prices had declined from $8.18 a bushel in November 1980 to $6.99 by mid-June 1981. This, plus a still vivid recollection of the drought-stricken soybean fields of 1980, influenced some producers to choose rice over soybeans.

Some cotton growers, with land suitable for rice production, decided in favor of rice after seeing cotton prices decline from 81 cents a pound in December 1980 to 72 cents a pound in May 1981. This switch seems especially likely to have occurred in Arkansas, where 1981 cotton-planted acreage declined 80,000 acres from 1980 plantings of 700,000. Cool and wet weather in late May caused cotton stand failures at a point when it was too late to replant. As a result, rice was the best alternative for some of this acreage.

The weather-delayed harvest of the record winter wheat acreage in Arkansas is a principal cause for the 300,000-acre increase in that State's rice plantings. Area harvested for wheat in 1981 exceeded 1.6 million acres, twice the area of the previous year. Producers, considering a double-crop alternative following a wheat harvest that was not completed until after mid-June, had a choice of soybeans or rice. In Arkansas, soybeans planted after mid-June have historically had sharply lower yields. Thus, on wheat acreage harvested after mid-June, soybeans were a high-risk second crop alternative. Consequently, a significant proportion of winter wheat acreage, ordinarily followed with soybeans, was instead seeded to early maturing rice.

Stocks Hit 6-Year Low

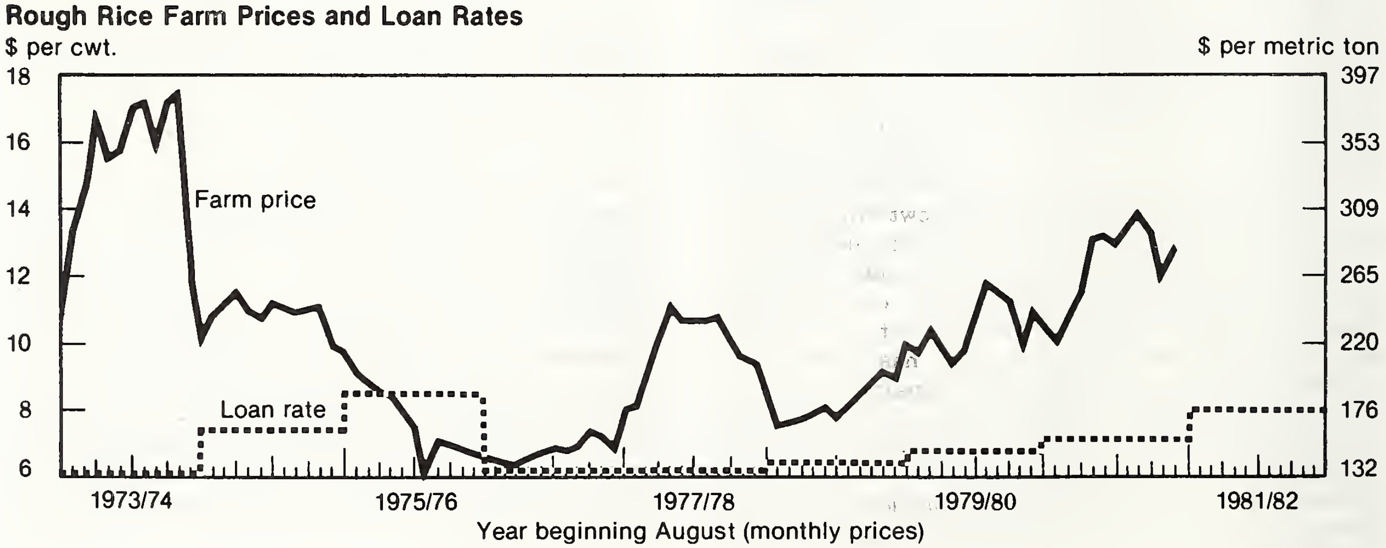
August 1, 1981, stocks of 16.5 million cwt were 9 million below last August and the lowest since 1975. All were free stocks, with none in the farmer-owned reserve or in the Commodity Credit Corporations (CCC) inventory.

Rice carryover by class August 1, 1980 and 1981

Class	Rough		Milled[1]		Total[2]	
	1980	1981	1980	1981	1980	1981
	Million cwt.					
Long	10.5	4.9	4.0	3.1	14.5	8.0
Medium	6.8	3.6	1.3	2.8	8.1	6.5
Short	2.8	1.3	0.3	0.7	3.1	2.0
Total	20.1	9.8	5.6	6.7	25.7	16.5

[1]Rough equivalent. [2]Totals may not add due to independent rounding.

Rough Rice Farm Prices and Loan Rates



USDA

Neg. ESS 408-81 (9)

Beginning stocks included 7 million cwt (rough equivalent) of milled rice and rough-rice stocks of about 10 million. Of the 16.5 million cwt rough-equivalent total, approximately 48 percent was long, 39 percent medium, and 13 percent short. All three types were below last year's levels.

Increased Domestic Disappearance Led By Rice for Food Use

Direct food use of rice was 38 million cwt in 1980/81, up sharply from 33 million in 1979/80. The 5-million-cwt increase was most likely related to economic pressures affecting household food budgets, increased distribution under private labels, more use in package mixes and as convenience rices, and promotional activities by the industry. The increase is not believed to be related to inventory building by wholesalers and retailers, because high interest rates discouraged carrying large stocks. Domestic demand for rice for direct food use is highly inelastic; thus, even though the 1980/81 retail price of rice was higher, it apparently had little effect on quantity purchased.

Shipments to U.S. territories accounted for about 10 percent of domestic food use in 1980/81. Shipments to territories were up about 11 percent from last year.

Record prices for brewers' rice and tight supplies in California slowed use of rice for beer to 11 million cwt in 1980/81, down 1 percent from 1979/80. Brewers' rice prices were $10.00 or more for much of 1980/81, the highest on record. Brewers' rice availability can be reduced by a slump in the demand for high-quality milled rice or substantial orders for brown rice, such as the 0.6 and 1.2 million metric tons sold to South Korea in 1979/80 and 1980/81, respectively. During those 2 years brewers' rice on the West Coast was particularly scarce, because California supplied the bulk of South Korea's brown rice orders.

Total 1980/81 Exports Less Than Expected But Up 11 Percent From Last Year

As a result of South Korea's July cancellation of 100,000 metric tons, and smaller-than-anticipated sales to Western Europe and the Middle East, U.S. 1980/81 rice exports totaled 91 million cwt, 3 percent short of early season expectations but still 9 million cwt ahead of last year. Exports to Western Europe were 15 to 20 percent below 1979/80 because of reduced rough-rice sales to Italy. The level of sales of brown and milled were about the same as in 1979/80. The higher price of U.S. rice, combined with political unrest in Iraq and Iran, accounted for much of the reduced sales to the Middle East. There were no direct sales of U.S. rice to Iran, recorded in 1980/81. Sales to Iraq fell from over 310,000 metric tons in 1979/80 to 71,000 in 1980/81. U.S. rice exports to the United Arab Emirates were only about half of 1979/80 shipments. However, Saudi Arabia was the bright spot in U.S. rice exports to the Middle East, with purchases of approximately 250,000 metric tons, up from less than 170,000 a year earlier.

For the second year in a row, the Republic of Korea (South Korea) was the principal customer for U.S. rice, with shipments of 1.05 million metric tons (milled basis)—a single-country record for the United States. The purchase was necessitated by poor weather, which reduced South Korea's crop to 5.5 million metric tons, the smallest since 1972. Virtually all of the 1.05 million tons imported from the United States was #5 medium-grain brown rice. This single sale accounted for 35 percent of total U.S. rice exports and the majority of medium-grain exports. California supplied approximately 80 percent of the order and the southern States the balance.

South Korea made additional rice purchases from at least 11 other countries, with major takings from Japan, Australia, and Thailand.

OUTLOOK FOR 1981/82

Record Rice Supplies Point to Keen Competition for Markets

Harvest of the 1981 rice crop was about 75 percent complete by the end of September. Weather has generally been excellent, and it now appears that U.S. rice producers will harvest a bumper 179-million-cwt crop from 3.8 million acres—production and acreage both being records. A production of this magnitude, added to August 1 beginning stocks of 17 million cwt, will push the total rice supply to 195 million cwt—the largest quantity the American rice industry has ever had to market. A record supply and a disappearance outlook somewhat below last year promises keen competition for markets and thus will require vigorous selling efforts and marketing strategy.

Arkansas has the greatest marketing job of any rice State. It accounts for over 60 percent of the increase in 1981 planted acreage and 41 percent of the 3.86 million U.S. total. Using the latest estimate of 1.58 million acres harvested and an expected average yield of 44 cwt an acre, Arkansas would have nearly a 70-million-cwt crop in 1981. Adding this to its August 1 beginning stocks could mean a total supply of approximately 76 million cwt—16 million above last year. The estimate of acreage for harvest by type includes 1.29 million long, 0.26 million medium, and 0.03 million short—all above last year. Only 435,391 of Arkansas' rice acreage is under allotment—27 percent of the estimated 1.6 million planted. Thus, nearly three-fourths of that State's 1981 crop will not be eligible for rice program benefits.

Although Arkansas had the largest 1981 expansions in rice acreage, all other major rice-growing States except Texas also had significant increases and will be vigorously seeking customers. California could be hard pressed to market its 451,000 acres of medium-grain rice if South Korea's 1981/82 crop substantially reduces import requirements, as is currently indicated. A significant

decline in South Korea's imports would also affect the medium-grain market in the southern region, where 1981 medium-grain acreage was up 36 percent. Louisiana, accounting for 398,000 or 55 percent of the southern region's 720,000 acres of medium grain rice, will be especially vulnerable to a reduction in sales.

Total Disappearance Down Slightly

Domestic use is expected to be up in 1981/82, but a weaker export demand indicates that total disappearance will be around 140 million cwt, about 4 percent less than a year ago. Based on an outlook for lower prices for brewers' rice and greater availability due to reduced brown-rice sales, use by the beer industry is expected to increase in 1981/82. Although food use should increase 2 to 3 percent, this outlet will not have the growth strength it had in 1980/81. The current projection is for total food use of around 39 million cwt in 1981/82, up 1 million from last year.

Prospects for excellent 1981/82 world crops, particularly in major importing countries, are expected to lower world rice imports to about 12.7 million metric tons. Unless weather, economic, and political factors significantly change the outlook later in the year, U.S. rice exports for 1981/82 are expected to be about 84 million cwt—down from 91 million in 1980/81. However, lower price levels could encourage greater purchases from the United States, pushing exports above current projections.

Rice Prices Significantly Below Last Year

Increased supplies and reduced utilization strongly suggest that rough rice prices will drop in 1981/82. The seasonal average price for rough rice in 1981/82 is expected to fall between $9.00 to $11.00 per cwt, well below the 1980/81 average of $12.00. If the U.S. average price for rough rice during August-December falls below the $10.68 target price, allotment producers will receive deficiency payments.

After reaching $13.30 per cwt soon after the New Orleans Commodity Exchange began trading rice in early April, September rice futures have trended downward. The drop accelerated after the June 29 rice acreage report, and September futures declined over $1.00 within a month. Some producers made selling hedges, but undoubtedly most of them did not take advantage of this means of locking in a higher price for the 1981 crop. Producer hedging may increase as more growers become familiar with this marketing strategy.

Large Carryover in Prospect

Larger supplies and a weaker disappearance outlook point to a record carryover of 52 million cwt on August 1, 1982. Stocks of long, medium, and short grains are all expected to increase sharply. Long grain constitutes approximately 8 million cwt of the 17 million beginning stocks on August 1. This, along with a 1981 harvest of 2.5 million acres of long grain, means that over half of the 1981/82 carryover is likely to be long grain. For medium grain, the 208,000-acre increase in the 1981 harvest and a bearish outlook for exports point to the largest carryover since 1977. Unless there is an unexpected serious shortfall in rice production among major importers and exporters or a heavy reduction in 1982 U.S. plantings, it could take more than a year to reduce stocks to the usual 25 to 30 million cwt. To reduce August 1983 beginning stocks to this level, 1982 acreage could not exceed 3 million—a22-percent reduction from 1981 plantings.

WORLD SITUATION AND OUTLOOK

World Rice Production Expected to Set New Record in 1981/82

World rice production in 1981/82 is forecast at a record 409 million tons, paddy basis. (All production figures are on a paddy basis for the marketing year, and trade figures are for milled rice on a calendar year.) This is a 3-percent increase over 1980/81 . Normal monsoon conditions in Asia into early August, including rainfall in South Korea in late June, are largely responsible for the record forecast.

One of the major increases in 1981/82 will probably be in South Korea, where production is expected to rebound from its disasterously low level of 1980/81. China and India, which together account for over half of world production, are likely to have a combined 4-million-ton increase. However, that would represent increases of around 2 percent for those countries. It is anticipated that China's production will be below the 1979/80 record, but that India's could set a record. Other countries expecting large tonnage increases are Japan, Indonesia, and Brazil.

World rice consumption is projected to about equal production in 1981/82. The gap between production and consumption has been narrowing in recent years. Ending stocks in 1981/82 are expected to increase slightly to around 23 million tons, equal to about 9 percent of consumption. India and Japan may still account for about 40 percent of total world stocks.

World rice trade during 1981 has been at a record, because Korean import needs jumped sharply and more than offset the reduction in Indonesian imports. Total world rice exports for 1981 are forecast at 13.2 million tons (milled), up sharply from previous years. The United States, Thailand, Pakistan, India, Japan, and Burma will all have large exports in 1981. The outlook for 1982 is not as bright, because production prospects continue favorable in major importing countries.

Major Exporters

THAILAND'S paddy production estimate for 1980/81 has been raised to a record 18.5 million tons because of good growing conditions for the dry-season crop. Howev-

er, high moisture may have added to the already large supplies of low-grade rice. A favorable monsoon season is in prospect this year, and projections are for a 1981/82 production of 18 million tons.

Rice exports in 1981 are expected to reach an alltime high of 3.2 million tons, up from 2.7 million the previous year. However, trade prospects for Thailand next year are less favorable, due both to an anticipated decline in world import demand and the large stocks of low-grade Thai rice. Thai export prices continued to rise in the first half of 1981, but in mid-July the Thai currency was devalued by almost 10 percent. Afterward, prices rose in baht terms, but fell in dollar quotes. Major markets for Thai rice in recent years have been in Southeast Asia, the Middle East, Africa, and presently the USSR.

PAKISTAN'S rice production in 1980/81 fell to a 3-year low of 4.6 million tons. The decline was due to less area in high-yielding varieties of rice and to insect damage that reduced the area harvested. However, the Government has raised paddy-rice prices to encourage increased planting, especially of HYV's (high-yielding varieties) in Punjab province. The outlook is for production in 1981/82 to rise to 4.8 million tons, back to the 1979/80 level, but 2 percent under the record 1978/79 crop. Pakistan's 1981 rice exports are projected to be 1.25 million tons, making it the third largest rice exporter. The prospective decline in world rice trade in calendar 1982 will probably hold Pakistan's exports for that year to about 1 million tons.

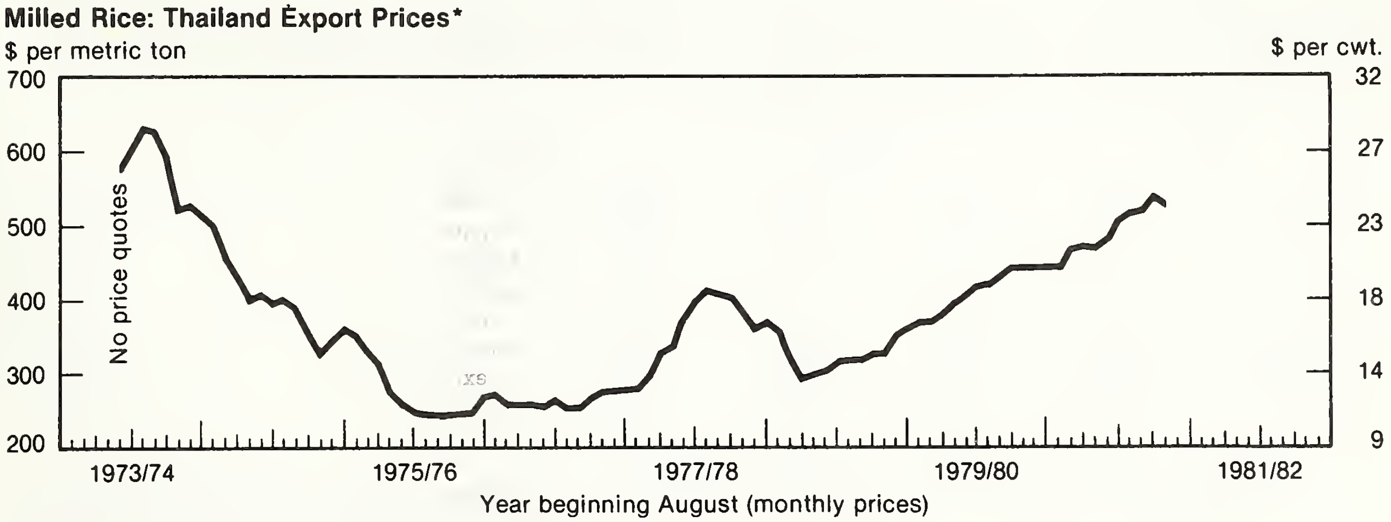
BURMA'S rice production in 1980/81 is estimated at 12.7 million tons, it's largest in 10 years. Production was up sharply because of a combination of favorable weather, greater use of HYV's and fertilizer, and Government price incentives. The 1981/82 crop is forecast to be slightly below the previous year's bumper crop, or about 12.5 million tons. Burma's exports doubled from 1978 to 1981 and are likely to continue expanding. That country is expected to be the fifth largest rice exporter in 1981, shipping 0.85 million tons, equal to 6 percent of forecast world exports.

CHINA'S rice production in 1980/81 fell 3 percent to 139 million tons. As the leading rice producer, it accounted for 35 percent of world output. Production is forecast to rise to 142 million tons in 1981/82. However, some decline in area planted and some loss to flooding are expected to keep production below the 143.7-million-ton record of 1979/80. With strong domestic and weak foreign demand projected, China's exports probably will not reach their earlier levels. Shipments have fallen from 1.4 million tons in 1978 to 1.1 and 1.0 million in 1979 and 1980, respectively. They have slackened further for 1981 and are expected to total only 0.6 million, the lowest since 1962. Some improvement is likely in 1982, but exports will probably remain below 1 million tons.

INDIA, the world's second largest rice producer, had a record 81.1 million tons in 1980/81, up sharply from the poor 1979/80 crop of 63.3 million. For 1981/82, an even larger crop is forecast—82.6 million tons, a 30-percent rise from 1979/80. Government rice stocks are large enough to allow continued large exports and adequate domestic supplies. Because of low wheat stocks and the need to import that grain, the Government may try to stimulate consumption of rice as a substitute . Indian rice exports in 1981 are projected to be 0.7 million tons, up from 0.4 million in 1980 and 0.1 million in 1978. In May, India and the Soviet Union signed their third consecutive barter agreement of rice for oil. Through March 1982, India will ship the USSR or Vietnam and Kampuchea 0.5 million tons of rice. In addition, the USSR will receive quantities of corn, barley, and peanuts in exchange for 1 million tons of crude oil and some petroleum products.

JAPAN'S rice production has declined for the last 3 years, falling from 16.4 million tons in 1977/78 to 12.2 million in 1980/81. Policy measures and continued bad weather caused the 18-percent drop in 1980/81. Production is expected to be up in 1981/82. Government policy continues to aim at reducing large rice stocks through several means: subsidizing consumer rice prices to keep the rate of increase below that for wheat, offering finan-

Milled Rice: Thailand Export Prices*



*White 5% brokens, F.O.B. Bangkok.

USDA

Neg. ERS 91-A-81 (9)

cial incentives for acreage diversion to other crops, reintroducing feed use of rice by pricing it below corn and sorghum, and maintaining an aggressive export program. Japan's main rice markets in the last 2 years have been Indonesia, South Korea, and Bangladesh. Large increases were made in food aid shipments to African countries in 1980. For 1981, Japan's rice exports are expected to rise almost 50 percent to 0.95 million tons. In bilateral discussions with the United States in April 1980, Japan agreed to limit its rice exports to a total of 1.6 million tons (brown basis) over the remaining 4 years of its surplus disposal program (April 1980 to March 1984). Because of emergency shipments to South Korea, the annual total for the first year has been exceeded, but exports should drop sharply in 1982.

Major Importers

SOUTH KOREAN rice production reached an 8-year low of 5.5 million tons in 1980/81. Production should rebound in 1981/82 to around 7.4 million tons, still below the 1977/78 to 1979/80 levels. South Korea is the world's leading rice market in calendar 1981, but it is unlikely to remain first in 1982. South Korean rice imports in 1981 are expected to almost triple to 2.15 million tons, with 1 million of that from the United States. In the 2 preceding years, U.S. rice sales to Korea were 0.1 and 0.6 million tons, respectively. Total rice imports in 1982 are projected to be under 1 million tons. Although U.S. rice exports to South Korea are expected to be sharply lower, the United States should again be the dominant supplier, especially of the Calrose medium-grain rice preferred in South Korea.

INDONESIAN production in 1980/81 reached a record 29.8 million tons, up 21 percent from the previous year. The 1981/82 crop is currently forecast at a record, because good weather has boosted prospects. The excellent first crop and prospects for a good second crop, combined with a high Government procurement, will likely lower rice imports to below 1 million tons in 1981. This is the lowest volume since 1975 and substantially below the 2 million in 1980. Indonesia's share of total world rice imports is expected to fall to 7 percent in 1981, compared with 16 percent in the previous 2 years. Thailand is the main supplier. The U.S. share of the Indonesian market has declined from one-fifth in 1978 to one-tenth in 1980. U.S. rice, provided as food aid, equaled 7 percent of total Indonesian rice imports from all sources in 1980. Despite the excellent crop forecast for 1981/82, Indonesia's imports will probably rise next year, as population and per capita consumption grow. Imports for 1982 are now projected at 1.5 million tons, so Indonesia may return to its former position as the world's number one rice market.

NIGERIAN production is estimated at 1.1 million tons in 1980/81, a 21-percent increase over the previous year. Nigerian rice output has risen continually during the 1970's, increasing by 155 percent since 1970. Total consumption has almost quadrupled in the same period, necessitating rising imports. Imports for 1980/81 are about half the production level; thus, they are expected to jump to 0.6 million tons in 1981, up from less than 0.4 million the previous year. Nigeria may be the fourth largest rice importing country in 1981, behind South Korea, Indonesia, and the USSR. Nigeria's purchases are likely to remain high in 1982.

Many MIDDLE EASTERN countries have continued to expand rice imports. Since 1978, Iran, Iraq, and Saudi Arabia have increased their rice imports from a combined total of 1 million tons to a projected 1.4 million in 1981. These countries have maintained a 10 to 11 percent share of total world rice imports each year since 1978. In 1982, the outlook is for imports to remain at 1981's 0.5 million tons each for Iran and Saudi Arabia and 0.4 million tons for Iraq. Pakistan is an important supplier, especially for basmati rice. The United States remains the major source of quality long grain, but Thailand also ships significant quantities, particularly to Iran.

Other AFRICAN COUNTRIES besides Nigeria continue to be important rice markets. Other major importers are Senegal, Ivory Coast, Malagasy, and South Africa. Imports of all African countries, excluding Nigeria, are expected to be around 1.8 million tons in 1981, up from 1.6 million in 1980. The United States supplies about 17 percent of the rice imported by African countries other than Nigeria (including commercial sales and food aid). In 1980, the United States signed food aid agreements for rice shipments to eight low-income African countries.

Table 2--Rough rice: Marketing year supply and disappearance 1/

Item	Year beginning August 1					
	1975	1976	1977	1978	1979	1980 2/
			1,000 cwt.			
Beginning stocks	4,050	31,345	33,351	21,128	25,138	20,093
Farm production	128,437	115,648	99,223	133,170	131,947	145,063
Supply	132,487	146,993	132,574	154,298	157,085	165,156
Mill use	95,818	105,685	101,219	117,961	124,340	141,192
Seed	3,500	3,200	4,300	4,300	4,800	5,100
Exports	10	994	4,059	2,773	1,670	414
Disappearance	99,328	109,879	109,578	125,034	130,810	146,706
Unaccounted for 3/	+1,814	+3,763	+1,868	+4,126	+6,182	+8,610
Ending stocks, July 31	31,345	33,351	21,128	25,138	20,093	9,840

1/Includes supply and disappearance of rough rice only. 2/Preliminary. 3/Results from drying, storage, handling, milling losses, and statistical error.

Table 3--Milled rice: Marketing year supply and disappearance 1/

Item	Year beginning August 1					
	1975	1976	1977	1978	1979	1980 2/
			1,000 cwt.			
Beginning stocks	2,164	3,892	5,156	4,347	4,583	4,035
Production	67,440	76,209	70,176	83,427	89,820	103,037
Imports	31	36	47	49	45	160
Supply	69,635	80,137	75,379	87,823	94,448	107,232
Food 3/	19,567	20,974	16,498	23,763	23,868	27,931
Brewers use	6,393	7,450	6,885	7,872	8,093	8,027
Exports	39,783	46,557	47,649	51,605	58,452	66,419
Disappearance	65,743	74,981	71,032	83,240	90,413	102,377
Ending stocks, July 31	3,892	5,156	4,347	4,583	4,035	4,855

1/Includes supply and disappearance of milled rice only. 2/Preliminary. 3/Include shipments to U.S. territories and rice for military food use.

Table 4--Commodity Credit Corporation (CCC) rice operations for selected crop years, rough rice equivalent 1/

Item	Crop of 1975/76	1976/77	1977/78	1978/79	1979/80	1980/81
	1,000 cwt.					
Price support Loans	21,459	23,415	19,541	27,114	25,897	24,992
Delivered to CCC 2/	19,187	608	--	--	--	--
Ending stocks, July 31	36,875	40,501	27,398	31,618	25,679	16,493
Stocks and loans outstanding						
Owned by CCC 3/	19,187	18,307	19,266	9,858	1,891	--
Under loan 3/	--	111	--	--	--	--
Total	19,187	18,418	19,266	9,858	1,891	--
Privately held (free) stocks 4/	17,688	22,083	8,132	21,760	23,766	16,493

1/Based on operating reports. 2/Includes direct purchases. 3/May include small quantities of new crop rice in last few years. 4/Derived by subtracting CCC stocks, and loans outstanding, from ending stocks.

Source: Agricultural Stabilization and Conservation Service, USDA.

Table 5--Rice, rough: Acreage, yield, and production

State	Acreage: Planted 1980	Planted 1981 1/	Harvested 1980	Harvested 1981 1/	Yield per harvested acre 1980	1981 1/	Production 1980	1981 1/
	1,000 acres		1,000 acres		Pounds		1,000 cwt.	
Arkansas	1,300	1,600	1,280	1,580	4,110	4,400	52,615	69,520
California	552	585	548	580	6,440	6,700	35,301	38,860
Louisiana	615	665	585	660	3,550	3,800	20,768	25,080
Mississippi	250	340	240	335	3,840	4,100	9,226	13,735
Missouri	56	77	56	77	4,180	4,200	2,341	3,234
Texas	590	590	586	587	4,230	4,800	24,812	28,176
United States	3,363	3,857	3,295	3,819	4,403	4,677	145,063	178,605

1/Preliminary.

Source: Crop Production, Crop Reporting Board, ERS, USDA.

Table 6--Rice stocks: Rough and milled, for selected dates 1/

Date and year	Rough: On farms or in farm ware-houses	Rough: At mills and in attached ware-houses	Rough: In ware-houses (not attached to mills)	Rough: In ports or in transit	Rough: Total all posi-tions	Milled: At mills and in attached ware-houses	Milled: In ware-houses (not attached to mills)	Milled: In ports or in transit	Milled: Total all posi-tions
					1,000 cwt.				
January 1									
1977	21,006	16,830	61,263	1,049	100,148	2,971	261	1,111	4,343
1978	8,269	15,930	51,984	899	77,082	2,895	503	3,046	6,444
1979	28,089	16,829	50,100	899	95,917	3,517	542	2,080	6,139
1980 2/	31,021	15,038	57,278	581	103,918	3,137	810	2,123	6,070
1981 2/	26,179	21,111	48,817	6	96,113	3,055	929	2,556	6,540
April 1									
1977	6,761	15,326	45,266	1,022	68,375	3,161	260	2,265	5,686
1978	3,157	14,323	34,675	900	53,055	3,611	994	2,861	7,466
1979	14,381	18,158	34,161	820	67,520	3,979	282	2,444	6,705
1980 2/	12,030	15,581	39,224	563	67,398	3,500	402	2,888	6,790
1981 2/	5,977	15,078	28,673	64	49,792	3,499	1,099	3,214	7,812
August 1									
1977	709	6,718	25,021	903	33,351	3,321	134	1,701	5,156
1978	586	6,288	13,411	843	21,128	3,118	221	1,008	4,347
1979	623	8,781	15,033	701	25,138	2,531	374	1,678	4,583
1980 2/	563	9,248	9,940	342	20,093	2,128	403	1,504	4,035
1981 2/	208	5,417	4,206	9	9,840	2,744	446	1,665	4,855

1/These estimates do not include stocks located in States outside the major producing States of Missouri, Mississippi, Arkansas, Louisiana, Texas, and California. 2/Preliminary.

Source: Rice Stocks, Crop Reporting Board, USDA.

Table 7--Rough rice milled, total milled production, and milling yields, United States

Year beginning August	Rough milled	Total milled produced 1/	Milling yields	Total heads produced 1/	Milling yields
	1,000 cwt.		Pounds per cwt.	1,000 cwt.	Pounds per cwt.
1977	101,218.9	70,175.7	69.33	58,735.6	58.03
1978	117,961.0	83,427.0	70.72	68,749.0	58.28
1979	124,340.0	89,820.0	72.24	78,942.8	63.49
1980 2/	141,192.0	103,037.0	72.98	89,601.7	63.46

1/Includes brown rice. 2/Preliminary.

Source: Monthly Statistical Statement, Rice Miller's Association, and Rice Market News, Agricultural Marketing Service, USDA.

Table 8--Rough rice: Average price received by farmers, by States and United States

Year	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Season average 1/
						Dollars per cwt.							
						Arkansas							
1978 2/													8.47
1979	9.21	9.92	9.97	9.92	9.37	9.95	11.10	11.60	11.50	11.00	10.60	10.50	10.60
1980 3/	9.74	9.70	10.30	11.40	12.70	12.90	12.50	13.20	14.10	13.10	12.40	12.20	N.A.
1981	N.A.												
						Louisiana							
1978 2/													7.50
1979	9.97	9.77	10.20	10.40	9.71	9.93	11.10	11.90	12.00	11.90	11.30	11.10	10.60
1980 3/	10.10	9.76	10.40	11.10	13.10	13.90	14.00	14.10	14.30	13.90	4/	12.10	N.A.
1981	N.A.												
						Mississippi							
1978 2/													7.98
1979	6.89	10.50	10.50	9.31	8.92	9.49	11.30	11.30	10.90	4/	10.80	10.50	10.30
1980 3/	10.30	10.40	11.60	12.20	13.40	13.70	11.80	13.60	13.70	4/	4/	4/	N.A.
1981	N.A.												
						Texas							
1978 2/													9.27
1979	10.30	11.00	11.40	11.30	11.10	12.40	12.00	11.90	12.10	11.10	10.50	11.00	11.60
1980 3/	11.20	11.50	12.30	13.30	13.90	13.60	13.90	14.10	14.20	13.80	12.60	13.60	N.A.
1981	N.A.												
						United States 5/							
1978 2/	8.44	7.56	7.62	7.76	7.98	8.07	7.87	8.18	8.52	8.74	8.73	9.10	8.16
1979	10.00	9.81	10.30	9.83	9.41	9.88	11.00	11.70	11.60	11.30	10.20	10.80	10.50
1980 3/	10.60	10.20	10.90	11.60	13.10	13.20	13.00	13.40	13.80	13.30	11.90	12.80	12.00
1981	*12.80												

1/ State and U.S. season average prices include an allowance for unredeemed loans and purchases by the Government, valued at the average loan rate, by States. Monthly prices do not include this allowance.

2/ Discontinued reporting monthly prices by State.

3/ Preliminary

4/ Not published separately to avoid disclosure of individual operations.

5/ California is excluded in the monthly averages but is included in the U.S. season average.

* Mid-month. N.A. -- Not available.

Source: Agricultural prices, Crop Reporting Board, ERS, USDA.

Table 9--Milled rice: Average price for U.S. No. 1, f.o.b. mills, at selected milling centers

Year and type	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
						Dollars per cwt. bagged							
						Southwest Louisiana							
Long 1/													
1978	18.75	15.75	16.15	16.25	16.40	16.30	16.75	16.60	21.50	21.50	21.50	21.50	18.40
1979	21.50	21.50	22.05	22.50	21.00	20.60	22.50	24.30	24.00	23.25	21.80	20.90	22.15
1980 2/	20.75	22.00	23.40	25.00	26.75	27.00	27.25	27.70	28.25	28.00	27.90	27.50	25.95
						Houston, Texas							
1978	19.00	16.50	16.60	16.20	16.35	16.30	16.60	18.20	21.00	21.00	21.00	21.00	18.30
1979	21.10	21.25	22.30	22.10	21.10	20.10	22.75	24.80	24.10	23.00	21.00	21.00	22.05
1980 2/	21.00	21.70	23.10	24.75	26.55	26.55	25.75	27.10	27.75	28.00	27.40	27.00	25.55
						Arkansas							
1978	19.55	17.10	17.00	17.00	17.00	16.70	16.90	18.75	21.50	21.50	21.50	21.50	18.85
1979	21.50	23.50	24.00	23.00	21.35	20.10	22.40	24.00	23.75	22.25	21.50	20.50	23.30
1980 2/	20.60	22.00	23.40	24.90	26.10	26.10	25.75	26.70	27.50	28.00	27.90	27.50	25.55
						Southwest Louisiana							
Medium 1/													
1978	16.90	14.50	14.50	14.50	14.65	14.15	14.00	14.85	16.50	16.50	16.50	17.50	15.40
1979	19.40	20.00	20.40	20.50	19.60	20.00	22.60	23.80	24.00	23.60	21.80	20.90	21.40
1980 2/	20.50	20.80	21.60	24.40	26.40	27.00	27.10	27.50	27.55	28.00	28.00	27.75	25.55
						Houston, Texas							
1978	17.65	15.50	15.50	15.25	15.50	15.30	15.50	16.10	17.00	17.00	17.00	17.00	16.20
1979	18.65	19.10	20.50	20.60	20.50	21.00	22.40	24.50	24.10	23.00	21.00	21.00	21.35
1980 2/	21.00	21.00	21.00	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	21.00
						Arkansas							
1978	18.95	16.90	16.00	16.00	15.65	15.20	15.40	16.25	17.00	17.00	16.50	18.70	16.65
1979	19.50	22.25	22.50	22.40	21.50	21.40	22.60	24.00	23.90	22.25	21.55	20.50	22.05
1980	20.60	21.30	22.50	24.00	25.75	26.10	25.75	26.70	27.40	28.00	28.00	27.50	25.30
						California							
Medium 3/													
1978	21.50	20.55	20.10	19.75	19.75	19.75	18.25	18.40	19.50	20.75	21.00	21.00	20.00
1979	22.50	23.00	23.00	23.00	23.00	23.00	25.10	24.70	23.00	23.00	23.00	23.00	23.30
1980 2/	23.00	23.20	24.75	25.00	26.75	30.00	30.00	30.00	30.00	30.00	30.00	30.00	27.70
Short 3/													
1978	20.25	19.00	18.20	17.40	17.50	17.50	16.75	16.80	18.20	19.00	19.00	19.00	18.20
1979	20.50	21.00	21.00	21.00	21.00	21.00	23.00	23.00	23.00	23.00	23.00	23.00	21.95
1980 2/	23.00	23.20	24.75	25.00	26.75	30.00	30.00	30.00	30.00	30.00	30.00	30.00	27.70

1/ U.S. No. 2--brokens not to exceed 4 percent. 2/ Preliminary. 3/ U.S. No. 1. N.Q. - No Quote.

Source: Rice Market News, Agricultural Marketing Service, USDA.

Table 10--Rice by-products: Monthly average price, at Southwest Louisiana

Year and type	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
						Dollars per cwt., bagged 1/							
Milled, long-grain second head													
1978	8.90	8.50	8.50	8.50	8.50	8.15	7.90	8.00	8.25	8.25	8.25	8.25	8.35
1979	8.25	8.45	9.00	9.50	9.50	10.10	11.00	11.90	12.50	12.50	12.50	12.25	10.60
1980	11.05	10.70	11.00	11.15	12.45	12.90	12.75	13.55	13.40	14.45	14.55	14.10	12.65
						Dollars, per ton 2/							
Rice bran, f.o.b. mills													
1978	47.60	34.40	38.50	64.50	72.85	67.50	65.60	52.80	38.90	41.60	52.50	62.50	53.25
1979	58.00	61.50	79.80	85.90	88.85	94.15	60.75	51.60	52.00	62.75	65.50	66.75	68.95
1980	76.90	84.70	86.40	95.50	N.Q.	101.90	73.60	59.10	57.50	60.00	71.60	69.15	76.05
						Dollars, per ton 2/							
Rice mill feed, f.o.b. mills													
1978	13.25	6.40	8.10	19.50	24.15	24.10	23.00	18.15	8.50	N.Q.	N.Q.	17.15	16.25
1979	20.35	19.25	25.90	30.25	40.65	45.65	18.15	13.50	11.00	11.25	11.10	15.25	21.85
1980	29.50	37.40	35.00	36.90	48.40	54.00	15.00	11.00	14.95	17.00	27.00	31.40	29.80

1/ U.S. No. 4 or better. 2/ Prices quoted as bulk. N.Q. - Not Quoted.

Source: Rice Market News, Agricultural Marketing Service, USDA.

Table 11--Brewers prices: Monthly average price for Arkansas brewers rice and New York brewers corn grits

Year and State	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Simple average
						Dollars per cwt.							
Arkansas													
1978/79	7.40	7.10	7.50	7.40	7.10	6.80	6.75	6.60	6.75	6.90	7.00	7.00	7.00
1979/80	7.05	7.30	7.90	8.25	8.50	9.00	9.40	9.65	9.75	9.75	9.75	9.75	8.85
1980/81	9.75	9.75	9.80	10.10	10.00	10.00	10.00	10.00	10.00	10.00	9.60	9.50	9.90
New York													
1978/79	7.63	7.47	7.43	7.59	7.76	8.10	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	7.66
1979/80	N.Q.	9.65	9.89	9.69	9.99	9.90	10.10	10.05	10.10	10.24	10.27	11.20	10.10
1980/81	11.60	12.11	12.26	12.74	12.42	12.44	12.60	12.64	12.72	12.42	12.57	12.85	12.45

N.Q. - Not Quoted.

Source: Rice Market News, Agricultural Marketing Service, USDA, and Milling and Baking News magazine.

Table 12--Rice: Value factors for computing support rates, for various rice classes 1/

Group and variety	1976	1977	1978	1979	1980	1981
			Dollars per cwt.			
National average loan rate	6.19	6.19	6.40	6.79	7.12	8.01
Head rice, whole kernels						
Long	10.75	10.90	11.25	12.18	12.76	14.54
Medium	9.25	9.40	9.75	10.43	11.01	12.79
Short	9.25	9.40	9.75	10.43	11.01	12.79
Broken rice, all classes	4.75	4.70	4.65	4.40	4.25	4.70
Premiums and Discounts By grades			Cents per pound			
U.S. No. 1	+.05	+.05	+.05	+.08	+.08	+.08
2	0	0	0	0	0	0
3	-.15	-.15	-.15	-.15	-.15	-.15
4	-.30	-.30	-.30	-.30	-.30	-.30
5	-.50	-.50	-.50	-.50	-.50	-.50

1/ The method of computing 1976-81 crop rough rice basic support rates is the same as that used in prior rice programs except that under the new rice standards, rice is classified by size and shape of kernel rather than variety. The basic support rates are applicable to No. 2 rice and will be adjusted by the above premium and discounts for U.S. grades per lb. A further discount for location, to adjust for transportation costs of moving the rough rice to an area where competitive milling facilities are available will also be made for rice produced in certain areas.

Source: Agricultural Stablization and Conservation Service, USDA.

Table 13--Thailand milled rice prices, f.o.b. Bangkok, by month 1/

Type and month	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82
			Dollars per metric ton			
100% 1st grade						
August	270	306	396	378	463	528
September	295	306	399	390	463	
October	300	306	390	392	463	
November	290	321	345	394	484	
December	290	352	324	409	491	
January	287	368	329	425	491	
February	284	402	330	428	501	
March	291	425	344	443	529	
April	284	440	346	447	540	
May	289	438	348	459	544	
June	292	432	352	463	560	
July	300	414	355	463	551	
Average	289	376	355	424	507	
100% 2nd grade						
August	259	290	381	363	450	508
September	280	290	384	375	450	
October	285	291	375	377	450	
November	275	307	330	382	471	
December	275	338	309	394	478	
January	272	352	314	410	478	
February	270	388	315	413	488	
March	275	410	329	428	514	
April	267	425	331	432	525	
May	273	423	333	444	529	
June	280	418	337	450	545	
July	285	399	340	450	533	
Average	275	361	340	410	493	
5% brokens						
August	243	275	366	349	442	498
September	266	275	369	360	442	
October	270	278	360	362	442	
November	259	294	315	364	463	
December	258	324	294	379	470	
January	259	338	299	395	470	
February	257	374	300	399	480	
March	261	396	314	415	505	
April	252	411	316	419	515	
May	257	409	318	433	519	
June	264	404	324	442	535	
July	272	384	327	442	523	
Average	260	347	325	397	484	

1/ Includes export premium, export tax and cost of bags. Packed in bags of 100 kgs. net.

Table 14--World rice production and stocks: Selected countries or regions 1/

Country or region	1977/78	1978/79	1979/80	1980/81	1981/82 as of Sept. 15
	Crop year 2/				
			Million metric tons		
Bangladesh	19.5	19.3	19.1	21.5	20.3
Burma	9.3	10.5	9.8	12.7	12.5
China, Mainl.	128.5	137.0	143.7	139.3	142.0
India	79.1	80.7	63.3	81.1	82.6
Indonesia	23.3	25.8	24.7	29.8	30.9
Japan	16.4	15.7	14.9	12.2	13.5
Korea, Rep. of	8.3	7.6	7.9	5.5	7.4
Pakistan	4.4	4.9	4.8	4.6	4.8
Thailand	15.0	17.5	15.7	18.5	18.0
Vietnam	11.3	9.9	10.7	10.0	11.0
Subtotal	315.1	328.9	314.7	335.2	342.9
Argentina	0.3	0.3	0.3	0.3	0.3
Australia	0.5	0.7	0.6	0.8	0.7
Brazil	7.5	7.6	9.6	9.1	10.0
EC-10	0.7	1.0	1.1	1.0	1.0
All others	41.5	40.6	42.8	43.3	45.7
Total non-U.S.	365.6	379.1	369.1	389.6	400.6
U.S.	4.5	6.0	6.0	6.6	8.1
World total	370.1	385.2	375.1	396.2	408.7
Ending stocks 3/					
Non-U.S.	22.9	26.7	22.0	22.1	21.8
U.S.	0.9	1.0	0.8	0.5	1.7
World total	23.8	27.8	22.9	22.7	23.4

1/Production is rough basis, but ending stocks are milled basis. 2/World rice harvest stretches over 6-8 months. Thus, for example, crop year represents the crop harvested in late 1978 and early 1979 in the Northern Hemisphere and the crop harvested in early 1979 in the Southern Hemisphere. 3/Stocks are based on an aggregate of different local marketing years, and should not be construed as representing world stock levels at a fixed point in time. Also, stocks data are not available for all countries.

Source: World Grain Situation, Foreign Agricultural Service, USDA.

Table 15--World rice trade (milled basis): Exports and imports of selected countries or regions 1/

Country or region	1978	1979	1980	1981	1982 as of Sept 15
	Calendar year				
	1,000 metric tons				
EXPORTS					
United States	2,264	2,267	2,977	3,000	2,750
Guyana	106	85	82	90	90
Uruguay	100	115	165	140	150
Argentina	118	95	117	100	100
Egypt	150	95	178	125	100
EC-10	670	737	794	737	732
India	143	375	425	700	600
Pakistan	703	1,366	968	1,250	1,000
Nepal	85	100	10	75	100
Burma	375	590	675	850	950
Thailand	1,573	2,696	2,700	3,200	3,000
China, Mainland	1,373	1,095	1,000	600	900
Philippines	49	127	231	150	200
North Korea	425	300	300	200	300
China, Taiwan	238	409	261	225	300
Japan	75	564	653	950	400
Australia	337	400	321	375	400
Other	628	384	599	468	609
WORLD TRADE	9,412	11,800	12,456	13,235	12,681
IMPORTS					
Canda	89	90	95	98	100
Mexico	15	34	128	80	125
South Africa	105	137	126	130	140
Malagasy	136	175	166	170	175
Ivory Coast	142	216	236	265	275
Mauritius	86	75	68	75	86
Nigeria	564	241	387	600	600
Senegal	228	259	266	400	350
South Korea	0	355	757	2,150	800
Indonesia	1,824	1,934	2,040	950	1,500
Malaysia	415	233	173	240	175
Laos	95	60	80	75	90
Soc. Rep. Viet Nam	150	350	250	150	150
Sri. Lanka	161	212	225	190	175
Hong Kong	345	341	357	360	360
Singapore	150	175	186	190	220
Bangladesh	18	602	191	75	75
Yemen, Sana	72	105	110	112	120
Saudi, Arabia	404	496	475	500	500
U. A. Emirates	145	175	350	225	250
Iran	320	371	500	500	500
Iraq	290	300	379	375	375
Kuwait	85	90	100	100	110
USSR	414	631	694	900	900
Portugal	45	75	20	100	100
EC-10	1,040	957	866	906	942
Brazil	57	745	100	170	150
Peru	0	150	251	125	150
Cuba	171	200	200	200	200
Other	1,846	2,014	2,680	2,824	2,988
WORLD TRADE	9,412	11,800	12,456	13,235	12,681

Source: World Grain Situation, Foreign Agriculture Service, USDA.

LIST OF TABLES
RICE

☆U.S. GOVERNMENT PRINTING OFFICE: 1981— 360-930:1030

UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250

Rice Factors

1 cwt. = 2.22 bushels = .617 barrels = .0453 metric tons
1 bu. = .45 cwt. = .277 barrels = .0204 metric tons
1 barrel = 3.6 bu. = 1.62 cwt. = .0734 metric tons
1 metric ton = 48.992 bu. = 13.609 barrels = 22.046 cwt.
bu. per acre x 0.5044 = quintals per hectare
lbs. per acre x 0.01121 = quintals per hectare
1 cwt. rough rice = .032659 metric ton milled
1 metric ton milled = 30.6198 cwt. rough